

Customer No. 24498
Attorney Docket No. PU020269
Final Office Action Date: 12/22/2008

Remarks/Arguments

The Office Action mailed on December 22, 2008 has been reviewed and carefully considered. Claims 1-17 are currently pending in this application. Reconsideration of the above-identified application in view of the following remarks, is respectfully requested.

Claims 1-3, 5, 6, 7, 9-14, 16 and 17 currently stand rejected under 35 U.S.C. §103(a) in view of United States Patent No. 4,940,951 to Sakamoto (hereinafter ‘Sakamoto’) and United States Patent No. 6,466,832, to Zuzert et al. (hereinafter ‘Zuzert’).

Claim 1 recites:

Apparatus comprising:

a receiver for receiving an audio file signal;
a decoder for demodulating said audio file signal; and

a processor configured to poll said decoder for a loss of a phase lock loop in said demodulating of said audio file signal to detect audio file signal loss between the receiver and a transmitter, wherein the processor is further configured to, in response to said loss in said phase lock loop, automatically reset and reinitialize said decoder throughout a period of signal transmission idleness at a transmitter source until a transmission signal is received and a phase lock loop is established.

Sakamoto is directed to a phase lock recovery apparatus that detects an unlocked state of a phase locked loop (PLL) signal and performs a frequency sweep to permit its oscillator to come within a lock range of an input signal (see, e.g., Sakamoto, Abstract). However, it is respectfully submitted that Sakamoto does not teach or render obvious responding to a loss of a phase lock loop by automatically resetting and reinitializing a decoder throughout a period of signal transmission idleness at a transmitter source. Rather, to initiate resetting and reinitiating of a PLL, Sakamoto requires that a signal be received at its apparatus. For example, Sakamoto teaches that a frequency sweep for PLL recovery is performed in response to an error detection pulse (see, e.g., Sakamoto Column 6, lines 34-36). The error detection pulse is generated by analyzing PCM data extracted from a received signal (see, e.g., Sakamoto, column 6, lines 7-16). Thus, because the resetting and reinitiating of a PLL is based on a received signal, Sakamoto fails to teach that a phase lock loop is reset and reinitialized throughout a period of signal transmission idleness at a transmitter source, as recited in claim 1. Moreover, in view of Sakamoto, it would not be obvious to modify the apparatus to reset and reinitialize PLL recovery

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during a period of transmission idleness because there is no need to do so. During a period of transmission idleness, there is no signal onto which the PLL may lock.

Furthermore, with regard to Zuzqert, Zuzqert fails to cure the deficiencies of Sakamoto. While Zuzqert discloses using a phase lock loop to lock on to transmission frequencies (see, e.g., Zuzqert, column 18, lines 12-25), Zuzqert does not disclose or render obvious responding to a loss of a phase lock loop by automatically resetting and reinitializing a decoder or a demodulator throughout a period of signal transmission idleness at a transmitter source. In addition, regardless of whether the transmitter in Zuzqert is capable of being in an “OFF” state, as noted in the Final Office Action, the apparatus of Sakamoto requires that a signal be received to initiate resetting and reinitiating of a PLL, as discussed above. Therefore, Zuzqert fails to cure the deficiencies of Sakamoto.

Accordingly, claim 1 is believed to be patentable over the cited references for at least the reasons discussed above. Likewise, claims 7 and 12 are believed to be patentable over Sakamoto and/or Zuzqert, as claims 7 and 12 include similar, relevant features discussed above with respect to claim 1. Claim 7 recites, inter alia: “automatically resetting and reinitializing said demodulating in response to said loss in said phase lock loop throughout a period of signal transmission idleness at a transmitter source until a transmission signal is received and a phase lock loop is established” In addition, claim 12 recites, inter alia: “automatically resetting and reinitializing said decoding in response to said loss in said phase lock loop throughout a period of signal transmission idleness at a transmitter source until a transmission signal is received and a phase lock loop is established.” Thus, claims 7 and 12 are believed to be patentable over Sakamoto and/or Zuzqert for at least the reasons discussed above. Additionally, claims 3, 5, 6, 9-14, 16 and 17 are believed to be patentable over the cited references due at least to their dependencies from claims 1, 7 and 12. As such, withdrawal of the rejection is respectfully requested.

Claims 4, 8 and 15 stand rejected as being unpatentable over Sakamoto as modified by Zuzqert in view of United States Patent No. 6,389,548, to Bowles (hereinafter ‘Bowles’).

Due to the dependencies of claim 4, 8 and 15 from claims 1, 7 and 12, respectively, claims 4, 8 and 15 include the feature of responding to a loss of a phase lock loop by automatically resetting and reinitializing decoding or demodulating throughout a period of signal

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transmission idleness at a transmitter source until a transmission signal is received and a phase lock loop is established. For at least the reasons discussed above, claims 4, 8 and 15 are believed to be patentable over Sakamoto and Zuzert. Furthermore, combination of Sakamoto and/or Zuzert with Bowles does not render claims 4, 8 and 14 obvious, as Bowles fails to cure the deficiencies of Sakamoto and/or Zuzert.

Bowles is directed to a system and method for measuring a pulse run length in a high frequency data signal (see, e.g., Bowles, Abstract). Although Bowles discloses using a phase locked loop to track changes in variations of the HF signal caused by imperfections on a compact disc, such as fingerprints (see, e.g., Bowles, column 7, lines 16-23; column 7, lines 65-67), Bowles does not disclose or render obvious responding to a loss of a phase lock loop by automatically resetting and reinitializing decoding or a demodulating throughout a period of signal transmission idleness at a transmitter source until a transmission signal is received and a phase lock loop is established, as included in claims 4, 8 and 15. Thus, claims 4, 8 and 15 are believed to be patentable over Sakamoto, Zuzert and Bowles, taken singly or in any combination.

In view of the foregoing, the Applicant respectfully requests that the rejections of the claims set forth in the Office Action of December 22, 2008 be withdrawn, that pending claims 1-17 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to the Applicant's representatives Deposit Account No. 07-0832.

Respectfully submitted,
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